MATHS LONG TERM PLAN – YEAR 4

Autumn 1	**Number and Place Value**		**Addition and Subtraction**	**Multiplication and Division**	
	- Count in multiples of 6, 7, 9, 25 and 1000 - Find 1000 more or less than a given number - Count backwards through zero to include negative numbers - Recognise the place value of each digit in a four-digit number (1000s, 100s, 10s and 1s) - Order and compare numbers beyond 1000 - Identify, represent and estimate numbers using different representations - Round any number to the nearest 10, 100 or 1000 - Solve number and practical problems that involve all of the above and with increasingly large positive numbers - Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value		- Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate - Estimate and use inverse operations to check answers to a calculation - Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	- Recall multiplication and division facts for multiplication tables up to 12 x 12 - Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers - Recognise and use factor pairs and commutativity in mental calculations - Multiply two-digit and three-digit numbers by a one-digit number using formal written layout - Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	
Autumn 2	**Properties of Shape**	**Fractions including Decimals**	**Money**	**Assessment**	**Time**
	- Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes - Identify acute and obtuse angles and compare and order angles up to two right angles by size - Identify lines of symmetry in 2D shapes presented in different orientations - Complete a simple symmetric figure with respect to a specific line of symmetry	- Recognise and show, using diagrams, families of common equivalent fractions - Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. - Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number - Add and subtract fractions with the same denominator - Recognise and write decimal equivalents of any number of tenths or hundredths - Recognise and write decimal equivalents to 1/4, 1/2, 3/4 - Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths	- Estimate, compare and calculate different measures, including money in pounds and pence	- NTS Assessments - Investigations (Nrich, etc)	- Read, write and convert time between analogue and digital 12- and 24-hour clocks - Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days

		- Round decimals with one decimal place to the nearest whole number - Compare numbers with the same number of decimal places up to two decimal places - Solve simple measure and money problems involving fractions and decimals to two decimal places			

	Addition and Subtraction	Number and Place Value	Measurement	Multiplication and Division
Spring 1	- Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate - Estimate and use inverse operations to check answers to a calculation - Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	- Count in multiples of 6, 7, 9, 25 and 1000 - Find 1000 more or less than a given number - Count backwards through zero to include negative numbers - Recognise the place value of each digit in a four-digit number (1000s, 100s, 10s and 1s) - Order and compare numbers beyond 1000 - Identify, represent and estimate numbers using different representations - Round any number to the nearest 10, 100 or 1000 - Solve number and practical problems that involve all of the above and with increasingly large positive numbers - Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value	- Convert between different units of measure - Measure and calculate the perimeter of a rectilinear figure in centimetres and metres - Find the area of rectilinear shapes by counting squares	- Recall multiplication and division facts for multiplication tables up to 12 x 12 - Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers - Recognise and use factor pairs and commutativity in mental calculations - Multiply two-digit and three-digit numbers by a one-digit number using formal written layout - Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects

Spring 2	**Time**	**Fractions including Decimals**	**Statistics**	**Assessment**	**Position and Direction**
	- Read, write and convert time between analogue and digital 12- and 24-hour clocks - Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days	- Recognise and show, using diagrams, families of common equivalent fractions - Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. - Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number - Add and subtract fractions with the same denominator - Recognise and write decimal equivalents of any number of tenths or hundredths - Recognise and write decimal equivalents to 1/4, 1/2, 3/4 - Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths - Round decimals with one decimal place to the nearest whole number - Compare numbers with the same number of decimal places up to two decimal places - Solve simple measure and money problems involving fractions and decimals to two decimal places	- Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. - Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs	- NTS Assessments - Investigations (Nrich, etc)	- Describe positions on a 2D grid as coordinates in the first quadrant - Describe movements between positions as translations of a given unit to the left/right and up/down - Plot specified points and draw sides to complete a given polygon
Summer 1	**Addition and Subtraction**		**Multiplication and Division**	**Fractions including Decimals**	
	- Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate - Estimate and use inverse operations to check answers to a calculation - Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why		- Recall multiplication and division facts for multiplication tables up to 12 x 12 - Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers - Recognise and use factor pairs and commutativity in mental calculations - Multiply two-digit and three-digit numbers by a one-digit number using formal written layout - Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	- Recognise and show, using diagrams, families of common equivalent fractions - Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. - Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number - Add and subtract fractions with the same denominator - Recognise and write decimal equivalents of any number of tenths or hundredths - Recognise and write decimal equivalents to 1/4, 1/2, 3/4 - Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths	

					- Round decimals with one decimal place to the nearest whole number - Compare numbers with the same number of decimal places up to two decimal places - Solve simple measure and money problems involving fractions and decimals to two decimal places	
Summer 2	**Time**	**Properties of Shape & Position and Direction**	**Money**	**Statistics**	**Assessment**	**Measurement**
	- Read, write and convert time between analogue and digital 12- and 24-hour clocks - Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days	- Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes - Identify acute and obtuse angles and compare and order angles up to two right angles by size - Identify lines of symmetry in 2D shapes presented in different orientations - Complete a simple symmetric figure with respect to a specific line of symmetry - Describe positions on a 2D grid as coordinates in the first quadrant - Describe movements between positions as translations of a given unit to the left/right and up/down - Plot specified points and draw sides to complete a given polygon	- Estimate, compare and calculate different measures, including money in pounds and pence	- Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. - Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs	- NTS Assessments - Investigations (Nrich, etc)	- Convert between different units of measure - Measure and calculate the perimeter of a rectilinear figure in centimetres and metres - Find the area of rectilinear shapes by counting squares